

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-12 are pending.

The outstanding Office Action objects to Claim 7 due to informalities; rejects Claims 1, 2, 9, and 11 under 35 U.S.C. § 102(a) as anticipated by Ogino (International Publication No. WO 00/02338, herein "Ogino"); and rejects Claims 3-8, 10, and 12 under 35 U.S.C. § 103(a) as unpatentable over Ogino.

Applicant and Applicant's representative wish to thank Examiner Aminzay and Primary Examiner Maung for the interview granted on April 7, 2004. During that interview, Claims 1 and 7 were discussed and compared with the asserted prior art. During the interview, the Examiners agreed that the asserted prior art does not disclose or suggest each and every feature recited in Claims 1 and 7, and indicated that the Examiner's search would be updated when the remarks provided during the interview are formally presented in a filed response. The remarks provided herewith are consistent with the remarks provided during the interview.

In response to the objection to Claim 7, Applicant has amended Claim 7, as suggested by the outstanding Office Action. Accordingly, Applicant respectfully requests that the objection to Claim 7 be withdrawn.

In regard to the rejection of Claims 1, 2, 9, and 11 under 35 U.S.C. § 102(a) as anticipated by Ogino, Applicant respectfully traverses the rejection for the following reasons.

To establish anticipation of claim 1 under 35 U.S.C. § 102(a), the Office Action must show that each and every feature recited in claim 1 is either explicitly disclosed or necessarily present in Ogino.¹

¹ See M.P.E.P. § 2131.

Claim 1 recites a fading pitch detection apparatus comprising, *inter alia*, a synthesizer for synthesizing signals outputted from a plurality of demodulators with a phase difference in each multipath being maintained and a fading pitch detector for detecting a fading pitch based upon an output signal from the synthesizer.

As agreed during the interview, Ogino does not disclose the above-mentioned synthesizer feature and fading pitch detector feature of Claim 1. In Ogino, "each of baseband reception units 102 performs dispreading of received radiowaves while shifting the chip phase, i.e., the timing of the PN code, in accordance with the arrival times that are detected by arrived radiowave search circuit 103."² "Power combiner 104 . . . combines signals after dispreading that are outputted from each of baseband reception units 102."³ Then, "electric field intensity measurement unit 112 . . . measures the intensity of the received electric field based on signals outputted from power combiner 104 for detecting fading pitch."⁴ In other words, in Ogino, signals from a plurality of demodulators are shifted in accordance with their arrival times and then synthesized. The synthesized signal is then used to detect fading pitches. Nowhere does Ogino disclose a synthesizer for synthesizing signals outputted from a plurality of demodulators with a phase difference in each multipath being maintained and a fading pitch detector for detecting a fading pitch based upon an output signal from the synthesizer, as recited in Claim 1.

Accordingly, Applicant submits that Claim 1 is patentable and the rejection of Claim 1 under 35 U.S.C. § 102(a) should be withdrawn. Independent Claim 11, although of different scope and/or statutory class, includes features similar to those in Claim 1 discussed above. Claims 2 and 9 depend from Claim 1. Thus, Applicant respectfully requests that the rejection of Claims 2, 9, and 11 under 35 U.S.C. § 102(a) be withdrawn as well.

² Col. 11, lines 11-15 of Ogino.

³ Col. 10, lines 28-30 of Ogino.

⁴ Col. 10, lines 38-41 of Ogino.

In regard to the rejection of Claims 3-8, 10, and 12 under 35 U.S.C. § 103(a) as unpatentable over Ogino, Applicant respectfully traverses the rejection for the following reasons.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), each of three requirements must be demonstrated. First, Ogino must teach or suggest each and every element recited in the claim.⁵ Second, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference in a manner resulting in the claimed invention.⁶ Third, a reasonable probability of success must exist with respect to the proposed modification relied upon in the rejection.⁷

Claim 7 recites a fading pitch detection apparatus comprising, *inter alia*, an auto-correlation detector for calculating an auto-correlated value of an output signal from a transforming device and a fading pitch estimation device for calculating a fading pitch based upon a comparison result between the auto-correlated value and a predetermined threshold value.

As agreed during the interview, the Ogino does not teach or suggest the above-mentioned auto-correlation detector feature and fading pitch estimation device feature of Claim 7. Ogino does not even recognize the use of an auto-correlated value for detecting a fading pitch.

Accordingly, Applicant respectfully submits that Claim 7 is patentable and the rejection of Claim 7 under 35 U.S.C. § 103(a) should be withdrawn. Independent Claim 12, although of different scope and/or statutory class, includes features similar to those in Claim 7 discussed above. Claims 8 and 10 depend from Claim 7. Thus, Applicant

⁵ See MPEP § 2143.

⁶ See *id.*

⁷ See *id.*

respectfully requests that the rejection of Claims 8, 10, and 12 under 35 U.S.C. § 103(a) be withdrawn as well.

Claims 3-6 depend on Claim 1. As discussed above with respect to Claim 1, Ogino does not teach or suggest each and every element recited in Claim 1. For example, Ogino does not teach or suggest at least a synthesizer for synthesizing signals outputted from a plurality of demodulators with a phase difference in each multipath being maintained and a fading pitch detector for detecting a fading pitch based upon an output signal from the synthesizer, as recited in Claim 1. In view of the failure of Ogino to teach or suggest all features of Claim 1, Applicant respectfully submits that Ogino does not render Claim 1 obvious under 35 U.S.C. § 103(a). Since Claims 3-6 depend on Claim 1, Applicant respectfully requests that the rejection of Claims 3-6 under 35 U.S.C. § 103(a) be withdrawn and Claims 3-6 be allowed.

In view of the foregoing remarks, Applicant respectfully submits that each and every one of Claims 1-12 defines patentable subject matter, and that the application is in condition for allowance. Applicant respectfully requests reconsideration and reexamination of this application and timely allowance of the pending claims.

Respectfully submitted,

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